



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

AJ

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/781,382 | 02/18/2004 | Anthony T. Pierry | 02-63 | 2758 |
| 30031 | 7590 | 01/05/2005 | EXAMINER | |
| MICHAEL W. HAAS, INTELLECTUAL PROPERTY COUNSEL RESPIRONICS, INC. 1010 MURRY RIDGE LANE MURRYSVILLE, PA 15668 | | | TSAI, CAROL S W | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2857 | |

DATE MAILED: 01/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,382

Applicant(s)

PIERRY ET AL.

Examiner

Carol S Tsai

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/18/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

“52” in page 8, paragraph 26, line 4.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 2857

3. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by U. S. Publication 2003/0190262 to Blazewicz et al.

With respect to claims 1 and 2, Blazewicz et al. disclose a respiratory gas monitoring system comprising: an interface unit (airway adapter 101 shown on Fig. 1) having a input coupling (inlet 103a shown on Fig. 1) and an output (outlet 103b shown on Fig. 1); and a plurality of gas measurement systems (mainstream (not shown) and sidestream 401 shown on Fig. 17), wherein each gas measurement system is adapted to be placed in fluid communication with an airway of a patient (patient 1102 shown on Fig. 11) to measure at least one respiratory gas, wherein each gas measurement system has an output coupling that is adapted to be removable coupled to the input coupling of the interface unit, and wherein each gas measurement system includes processing means (Digital Signal Processing (DSP) controller 112 shown on Fig. 14 and Fig. 17) for determining, from the respiratory gas, at least one respiratory variable of such a patient and for providing an output to the interface unit via the output coupling (see Figs. 1, 16, and 17 and paragraphs 0069, 0075, 0085, 0086, 0090, 0092, 0122, and 0133).

As to claim 3, Blazewicz et al. also disclose the output of the interface unit is a hardwired communication link or a wireless communication link (see paragraph 0125).

As to claim 4, Blazewicz et al. also disclose a method of respiratory gas monitoring comprising the steps of: providing an interface unit (airway adapter 101 shown on Fig. 1) having a input coupling (inlet 103a shown on Fig. 1) and an output (outlet 103b shown on Fig. 1); providing a plurality of gas measurement systems (mainstream (not shown) and sidestream 401 shown on Fig. 17), wherein each gas measurement system has an output coupling, and wherein each gas measurement system includes processing means (Digital Signal Processing (DSP)

Art Unit: 2857

controller 112 shown on Fig. 14 and Fig. 17) for determining, from the respiratory gas, at least one respiratory variable of such a patient (patient 1102 shown on Fig. 11) and for providing an output to the interface unit via the output coupling; and coupling one of the plurality of gas measurement systems to the interface unit by coupling the output coupling of an associated gas measurement system with the input coupling of the interface unit (see Figs. 1, 16, and 17 and paragraphs 0036, 0069, 0075, 0085, 0086, 0090, 0092, 0122, and 0133).

Blazewicz et al. do not disclose expressly the coupling being selective.

It is, however, considered inherent that Blazewicz et al. disclose the coupling being selective (see paragraph 0085), because such selecting is known to be a necessary step in order that each measuring apparatus can be inserted respectively.

As to claim 5, Blazewicz et al. also disclose operatively coupling the output of the interface device to a host system; and communicating the at least one respiratory gas variable from the gas measurement system to the host system via the interface unit (see paragraph 0122).

As to claims 6 and 8, Blazewicz et al. also disclose a sidestream gas measurement system adapted to communicate with a host system that is configured to communicate only with a mainstream gas measurement system, the sidestream gas measurement system comprising: a housing (airway 101 shown on Fig. 1); a sample cell connector (inlet 103a and outlet 103b shown on Fig. 1) associated with the housing and adapted to receive a sample cell (see paragraph 0075); a gas sensor (mainstream (not shown) and sidestream 401 shown on Fig. 17) disposed in the housing relative to the sample cell connector so as to be in communication with the sample cell responsive to the sample cell being received in the sample cell connector, and wherein the

Art Unit: 2857

gas sensor outputs a signal indicative of a property of a gas in the sample cell (see paragraphs 0077, 0111, 0133, and 0137); emulation means (Digital Signal Processing (DSP) controller 112 shown on Fig. 17), receiving the signal from the gas sensor, and using the signal in an output signal to simulate signals of output by a mainstream gas measurement system (see paragraphs 0122 and 0139); and a communication element (RS-232 1706 shown on Fig. 17) operatively coupled to the emulation means to interface the sidestream gas measurement system (sidestream 401) with such a host system (process computer 1705 shown on Fig. 17) (see paragraph 0072 and 0137-0139).

As to claim 7, Blazewicz et al. also disclose a sidestream gas measurement system, comprising: a first conduit having a first end (inlet 103a shown on Fig. 1)) adapted to be placed in fluid communication with a patient circuit and a second end (outlet 103b shown on Fig. 1); a sample cell (airway 101 and volume 102 shown on Fig. 1) disposed at the second end of the first conduit; a gas sensor (mainstream (not shown) and sidestream 401 shown on Fig. 17) operatively coupled to the sample cell, wherein the gas sensor outputs a signal indicative of a property of a gas; a processing element (Digital Signal Processing (DSP) controller 112 shown on Fig. 14 and Fig. 17) adapted to receive the signal and to determine a respiratory gas variable based on the signal and a host system (host computer(not shown)) interface configured to communicate an output of the processor with a host system configured to interface only with a mainstream gas measurement system, and wherein the processing element configures signals provided by the host system interface to emulate signals provided by a mainstream gas measurement system or portion thereof (see Fig. 14 and paragraph 0069 and 0120-0122).

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Russell discloses an improved optical configuration for use in a gas monitoring system.

Jam discloses the respiratory booster machine to generate and transmit particularly designed and timely delivered vibrations to the lungs of a subject to improve ventilation, augment diffusion of gases across alveolar membrane, facilitate pulmonary blood perfusion, prevent focal alveolar collapse, and enhance effective expectoration.

Rich et al. disclose a sidestream sampling system including a sidestream gas measurement assembly and a sample cell configured to be assembled therewith.

Jonson discloses an apparatus and method for examining the pulmonary mechanics of a respiratory system, in order to obtain information about the mechanical properties of the respiratory system's lungs, during an expiration of a flow of gas streaming out of the respiratory system is modulated, the volume of gas streaming out of the respiratory system is determined, the variation in pressure in the respiratory system is determined, and an expiratory pressure-volume relationship is determined from the expiratory volume and the expiratory variation in pressure.

Blazewicz et al. disclose apparatus or systems which employ luminescence-quenching to produce a signal indicative of oxygen concentration.

Drucker et al. disclose an improved apparatus and method for measuring the concentration of carbon dioxide in respiratory gases.

Corenman et al. disclose an improved gas analyzer system and method of use for

Art Unit: 2857

detecting and displaying the partial pressures of certain constituent gases in a respiratory gas stream, the system comprising an optical bench through which a respiratory gas flows and in which measurements of the gas are taken; analog input circuits for receiving signals output from the optical bench through which a respiratory gas flows and in which measurements of the gas are taken; analog processing circuits for processing signals output from the analog input circuits; display processing circuits for processing the signals output from the analog processing circuits and other system circuitry; pixel logic circuits/analog outputs for processing signals output from the display processing circuitry and providing analog output ports; a five button panel, an alarm/knob board, and a speaker driver for operator interface and activation of audible and visual alarms; a CRT driver for driving a CRT; and a power supply for powering the system.

Contact Information

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. W. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571) 272-2216. The fax number for TC 2800 is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2800 receptionist whose telephone number is (571) 272-1585 or (571) 272-2800.

In order to reduce pendency and avoid potential delays, Group 2800 is encouraging FAXing of responses to Office actions directly into the Group at (703) 872-9306. This practice

Art Unit: 2857

may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into Group 2800 will be promptly forwarded to the examiner.

A handwritten signature in black ink, appearing to read "Carol S. W. Tsai".

Carol S. W. Tsai
Patent Examiner
Art Unit 2857

12/29/04